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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 37

Application Number: 08/941,832  
Filing Date: October 1, 1997  
Appellant(s): Chacon

\_\_\_\_\_  
Ronald P. Kananen  
For Appellant

**EXAMINER'S RESPONSE TO SECOND BOARD REMAND**

This is in response to the Board's second Remand on the appeal. The Board's advice has been carefully considered. To that end, a representative claim has been selected and the language aligned side by side with reference to the specific page, line number, drawing reference number and quotation from the reference relied upon, as appropriate as directed by the Board's instructions (page 3, paper # 35). All other arguments are incorporated by reference to the Examiner's Answer (paper # 34). Please note that there are no new grounds of rejection.

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The Supplemental Reply Brief has been entered and carefully considered. Appellants have made no new arguments and no response is necessary at this time. However, the Office would like to remind Appellants of 37 CFR 1.3. Business is to be conducted with decorum and courtesy. Applicants and their attorneys or agents are required to conduct their business with the Patent and Trademark Office with decorum and courtesy. Papers presented in violation of this requirement will be submitted to the Commissioner and will be returned by the Commissioner's direct order. The remarks presented in the second to last paragraph of page 2 of paper # 36 are of a personal nature, do not address the merits of the rejections, and have no place in the Reply Brief. Complaints against examiners and other employees must be made in correspondence separate from other papers.

The status of the claims is as follows: **Claims 37-50 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Seppanen (IEEE, 1993 - of record).** The Umeda rejection is withdrawn as being cumulative.

The following is a listing of the prior art of record *relied upon in the rejection* of claims under appeal.

**Seppanen, M.S.** "Kanban Simulator using Siman and Lotus 1-2-3." Winter Simulation Conference Proceedings 1993 (December, 1993), pp. 838-844.

The Board has remanded the case for a detailed explanation of the Examiner's position. The Board's advice has been carefully considered. To that end, a representative claim has been selected and the language aligned side by

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side with reference to the specific page, line number, drawing reference number and quotation from the reference relied upon, as appropriate as directed by the Board's instructions (page 3, paper # 35). Note that "S" refers to Seppanen.

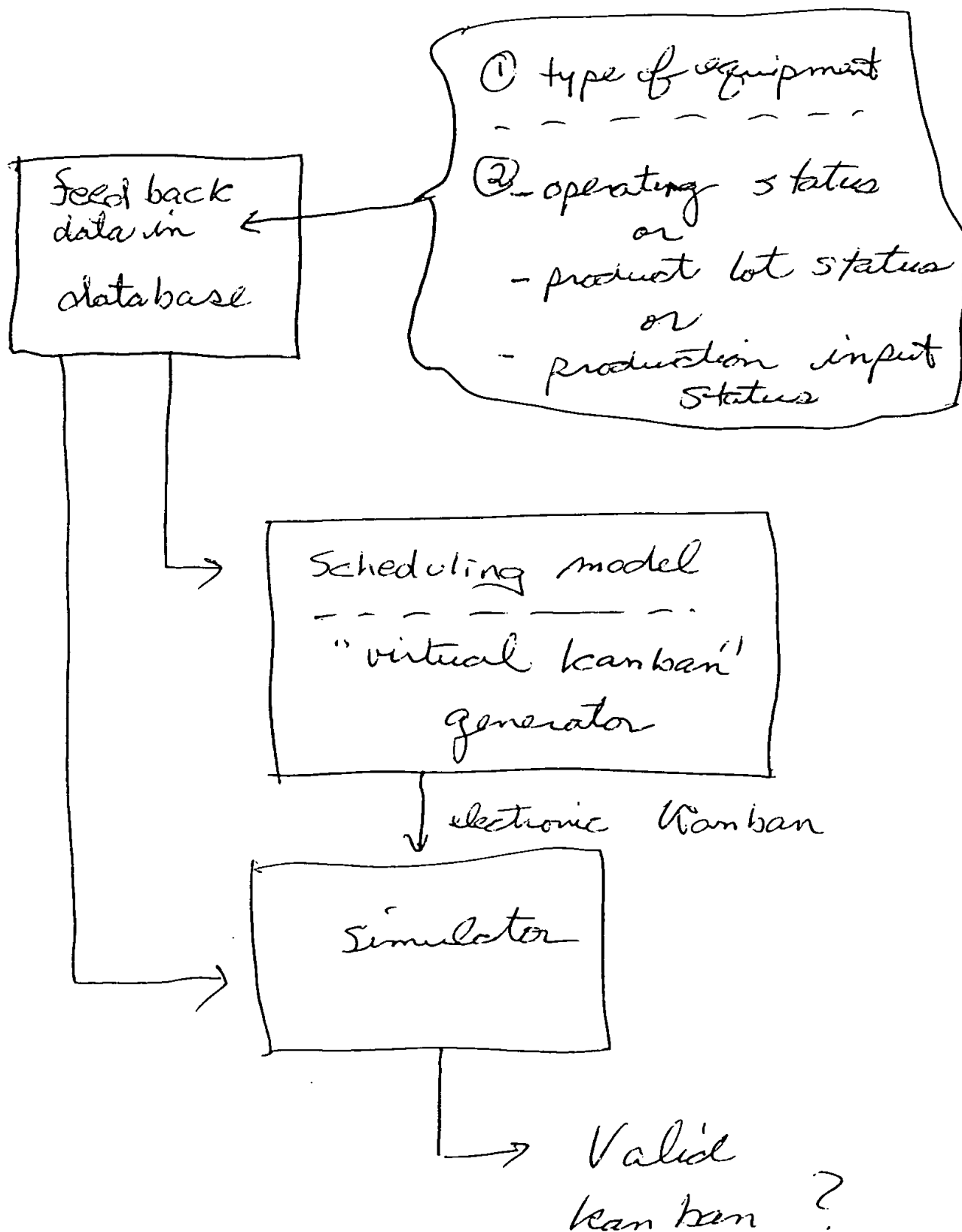
The claim language and its alignment with specific reference to the applied art will be provided in short order. However, a short discussion of the claim language and a presentation of the claim diagram will help to elucidate the issues.

The Examiner interprets the invention to be: ***real-time (in the specification - but not claimed) optimization of a production routing schedule using stored feedback data as input to a simulator***. The Examiner also understands *electronic/virtual Kanban* to be electronic tracking of items in a manufacturing line. Please note that the claim mapping has been carried out with the following considerations:

- Note that there is no connection between the claimed invention and a real manufacturing system.
- The production line feedback data could be hypothetical. There is no limitation specifying that the data was measured or obtained as it occurred.
- There is no output from the simulator to a manufacturing system.
- A manufacturing system has not been claimed.
- Nothing is actually done with the results (after determining validity of the kanban).
- Note that nothing is being ***controlled***. Such a feature is simply not claimed.

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Please refer to the following claim diagram which illustrates claim 41:



The claim mapping is now presented. The Board's advice has been carefully considered. To that end, a representative claim has been selected and the language aligned side by side with reference to the specific page, line number, drawing reference number and quotation from the reference relied upon, as appropriate as directed by the Board's instructions (page 3, paper # 35). Note that "S" refers to Seppanen.

Seppanen teaches: "Kanban Simulator using Siman and Lotus 1-2-3." See particularly: abstract; and pp. 838-844.

In particular:

**A method for controlling a manufacturing production line using a virtual kanban system, the method comprising the steps of:**

**storing production line feedback data in a database**

(S: see Figure 6 "Kanban Simulator Information Flow" – "Model Worksheet"; Table 2; section 5.1 "Model worksheet"; figure 5 "Kanban worksheet");

**inputting said feedback data into a production scheduling model that includes the virtual kanban system and generating an electronic kanban**

(S: see Figure 6 "Kanban Simulator Information Flow" – "KANBPREP", Kanban.mod, "MODEL", "PUSH.E", "PUSH.P", "PULL.E", "PULL.P");

**inputting the electronic kanban and the feedback data to a simulator and simulating the manufacturing production line**

(S: see Figure 6 "Kanban Simulator Information Flow" – "SIMAN");

**determining the validity of the electronic kanban**

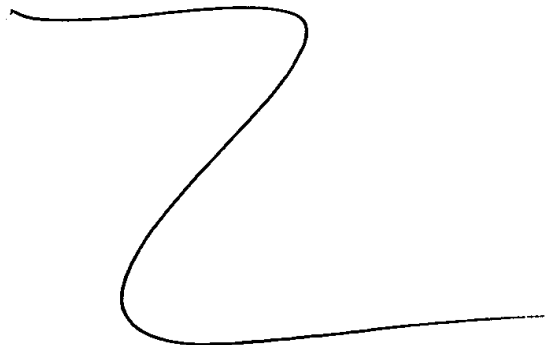
(S: see Figure 6 "Kanban Simulator Information Flow"; Table 1, block 16; Last paragraph, col. 2, pg. 839 to col. 1, pg. 840);

wherein the feedback data comprises a first data set specifying a type of equipment in the production line and a second data set specifying at least one of operating status of equipment, product lot status and production inputs status

(S: see Figure 6 "Kanban Simulator Information Flow" – "Model Worksheet"; Table 1, blocks 1-2, 5-10, Table 2, "arrivals, resources, stations").

Appellants' arguments relating to the prior art have been fully considered but they are not persuasive.

Consider claim 41, which is exemplary (see pg. 52, Appeal Brief): The Examiner interprets the invention to be: ***real-time (in the specification - but not claimed) optimization of a production routing schedule using stored feedback data as input to a simulator***. The Examiner also interprets *electronic/virtual Kanban* to be electronic tracking of items in a manufacturing line. These concepts have been disclosed in the prior art. Appellants have referred to their Summary of the Invention. However, Appellants have not explained the ***patentable difference*** between the ***claim and said interpretation***. The Examiner respectfully does not see the patentable distinctions as per Appellants definitions (in the specification) of claimed features. Furthermore, as noted, *the Summary is not agreed with by the Examiner for reasons presented earlier*.



For these reasons, the Examiner's position has been that Appellants are disclosing (*in the specification*) ***real-time optimization of a production routing schedule using feedback as input to a simulator***. The Examiner also interprets ***electronic/virtual Kanban to be electronic tracking of items in a manufacturing line***. As per "validity" of the kanban, it is noted that Appellants refer (pg. 16, last paragraph, *Appeal Brief*), to lines 5-20 pg. 5 of the specification as it relates to "determining validity of the Kanban." The Examiner respectfully submits that said portion does not disclose anything relating to "determining validity of the Kanban." However, a reasonable interpretation is that "validity" refers to the existence of a simulation solution that could be implemented. In any case, these concepts been disclosed in the prior art.

**Note, however, that Appellants have not even claimed "real-time" in claim 41.**

Examiner has attempted to point out to Appellants that any disclosure regarding simulation of a Kanban system would read on the independent claims as *they have been drafted*. The claims, as recited, merely claim a simulation - any art regarding simulation of a Kanban would therefore read on the claims. In response to applicant's arguments, the recitation *controlling a manufacturing process* has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

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Furthermore, in response to applicant's argument that "*Applicant is not claiming a simulation of a Kanban system...*" (pg. 10, paper # 17), a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

**Functionally, Applicant has merely claimed a simulator of a production line schedule which uses stored feedback data in its simulation.**

Also note Applicants statement (second paragraph, pg 23, Appeal Brief), recited for convenience:

"The simulator of De Toni is **NOT** the simulator recited in claims 23 and 41, which simulates operation of the production line and receives as input the electronic kanban from the production scheduling model."

Note that this states that the production line is simulated. It further states that the input comes from a model, not real data. ***In other words, Appellants only claiming a simulation of a production line which inherently includes simulation of tracking of manufacturing items and machines.*** Appellants also appear to be arguing or implying that the model is somehow separate from the simulation. The Examiner, respectfully, is not persuaded by such reasoning. It is inherent in simulations that the simulator must be initialized before it can be run. The "input" from the ***model*** is the ***initialization*** of the



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**simulation. The Examiner respectfully does not see the patentable distinction between Appellants claimed invention and the simulation of a kanban system.**

Note that the Examiner interprets claim 41 as follows (taking into account the above discussions):

**“A method for simulating a production line which uses an electronic tracking system, the method comprising the steps of:**

**storing production line feedback data in a database;**

**inputting said feedback data into a production scheduling model that includes the electronic tracking system and generating electronic data about the tracked items;**

**inputting the electronic item tracking data and the feedback data to a simulator and simulating the manufacturing production line;**

**determining if a solution to the simulation exists;**

**wherein the feedback data comprises a first data set specifying a type of equipment in the production line and a second data set specifying at least one of operating status of equipment, product lot status and production inputs status.”**

Appellants arguments against both Umeda et al. (Page 24, Appeal brief) and Seppanen (page 25, Appeal Brief) suggest that they do not disclose determining the validity of the Kanban. The Examiner's position has been that Appellants are disclosing **(in the specification) real-time optimization of a production routing schedule using feedback as input to a simulator**. The Examiner also interpreted, *in the absence of information to the contrary*, that **electronic/virtual Kanban to be electronic tracking of items in a manufacturing line**. As per “validity” of the kanban, it is noted that Appellants refer (pg. 16, last paragraph, Appeal Brief), to lines 5-20 pg. 5 of the specification as it relates to “*determining validity of the Kanban.*” The Examiner

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respectfully submits that said portion does not disclose anything relating to "*determining validity of the Kanban.*" ***However, a reasonable interpretation is that "validity" refers to the existence of a Kanban simulation solution that could be implemented.*** The Examiner has consistently rejected the claims with this interpretation. Appellants now object to the interpretation but ***have provided no information to the contrary.***

***Prima facie case is made when such will prevail until contradicted and overcome by other evidence or which has proceeded upon sufficient proof to that stage where it will support finding if evidence to the contrary is disregarded.***

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Dr. Hugh Jones

Primary Patent Examiner

May 31, 2004

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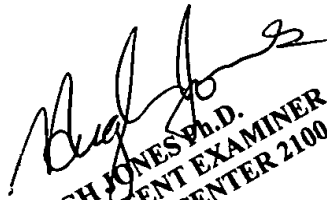
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